Call to the Audience Guidelines

- 2 Call to the Audience opportunities
- Must fill out participant card
- Participants called in the order cards are received
- 3 minutes allowed per participant
- CTF Facilitator will call on speakers and manage time
- CTF members cannot discuss matters raised
- CTF cannot take action on matters raised
- CTF members can ask project team to review an item

May 30, 2013
Broadway Citizens Task Force Meeting

Meeting Agenda

1.	Call to Order/Agenda Review/Announcements	
2.	1st Call to the Audience	*15 min*
3.	Public Input Report, and Reports on Project Presentations & Outreach	*10 min*
4.	Review Potential Cross Sections and Performance Assessments, and Endorse a Representative Set of them to Move Forward into Review by Stakeholder Agencies	*90 min*
5.	Initial Discussion of September Public Meeting #3	*35 min*
6.	2nd Call to the Audience	*1 min*
7.	Next Steps/CTF Roundtable	*10 min*
8.	Adjourn	

Call to the Audience

15 Minutes

Please limit comments to 3 minutes

- Called forward in order received
- CTF members cannot discuss matters raised
- CTF cannot take action on matters raised
- CTF members can ask project team to review an item

Review Public Input Report

Jenn Toothaker

Public Input Report consists of a spreadsheet and attachments:

- **Spreadsheet** = Input received from 5/9/2013 - 5/20/2013
- **Attachments** = Documentation of only new input received

Reports: Past and Upcoming Project Presentations & Outreach

- **May 22, 2013 RTA CART Meeting – *Doug Mance***
- **June 3, 2013 CTAC Meeting – *Farhad Moghimi***

Review Potential Cross Sections and Performance Assessments, and Endorse a Representative Set of them to Move Forward into Review by Stakeholder Agencies

Phil Erickson
Community Design + Architecture

Mike Johnson
HDR Engineering

Jim Schoen
Kittelson & Associates

Agenda for this item

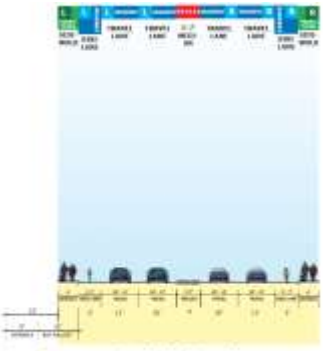
- Tonight we will discuss, and refine or add to—
  - 9 draft cross section concepts
  - How they fit within the east and west of Campbell prototypical sections
  - How they relate to existing roadway, right of way, and building front to building front distances
  - How they performed in an assessment against the 24 performance measures that are applicable at this level of design (an additional 29 measures will be evaluated in the future)

Draft Cross Section Concept Options

- Four families of section concept types
  - **4** mixed-flow travel lanes (3 concepts)
  - **4** mixed-flow travel lanes **+ transit** (2 concepts)
  - **6** mixed-flow travel lanes (2 concepts)
  - **6** mixed-flow travel lanes **+ transit** (2 concepts)
- Range of concepts
  - Include different facilities for pedestrians, bicycles, transit, and vehicles
  - In response to input from the public, stakeholder agencies, and the CTF
    - Evolving Goals and definition of "functionality"
  - Evolving set of design parameters and criteria (i.e.; min. lane widths, target speed, landscape maintenance requirements, etc.)

Four Lane

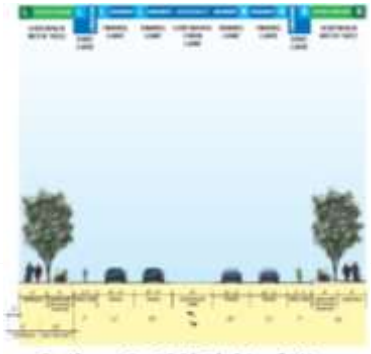
Potential R.O.W. Range – 67 to 134 feet



Option 4A: 67′ Right-of-Way

Four Lane

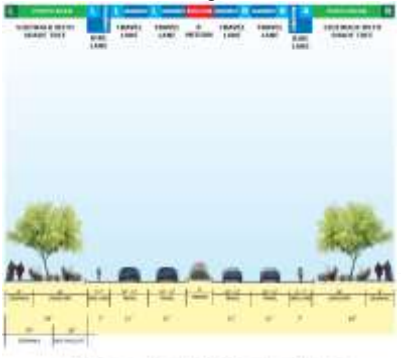
Potential R.O.W. Range – 67 to 134 feet



Option 4B: 100′ Right-of-Way

Four Lane

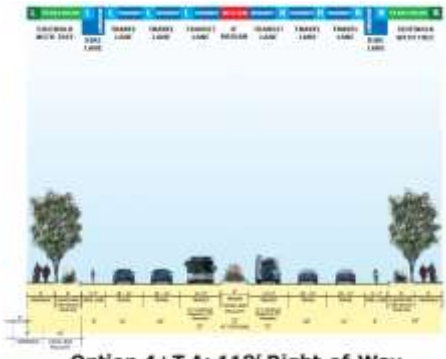
Potential R.O.W. Range – 67 to 134 feet



Option 4C: 112′ Right-of-Way

Four Lane + Transit

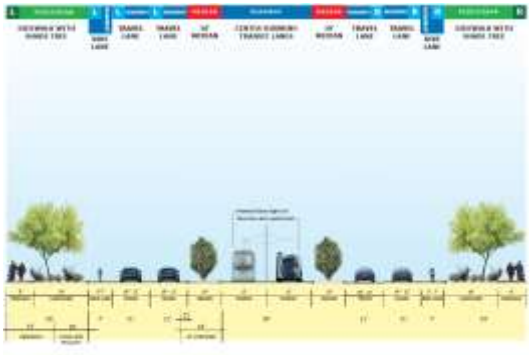
Potential R.O.W. Range – 89 to 156 feet



Option 4+T A: 118′ Right-of-Way

Four Lane + Transit

Potential R.O.W. Range – 89 to 156 feet



Option 4+T B: 152′ Right-of-Way

Six Lane

Potential R.O.W. Range – 89 to 152 feet

Option 6A: 114′ Right-of-Way

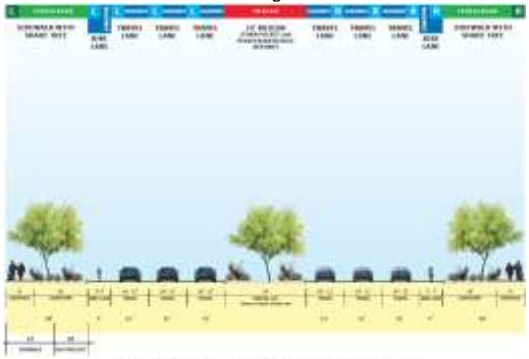
Six Lane

Potential R.O.W. Range – 89 to 152 feet

Option 6B: 152′ Right-of-Way

Six Lane

Potential R.O.W. Range – 89 to 152 feet



Option 6B: 152′ Right-of-Way

Six Lane + Transit

Potential R.O.W. Range – 109 to 172 feet

Option 6+T A: 146′ Right-of-Way

Six Lane + Transit

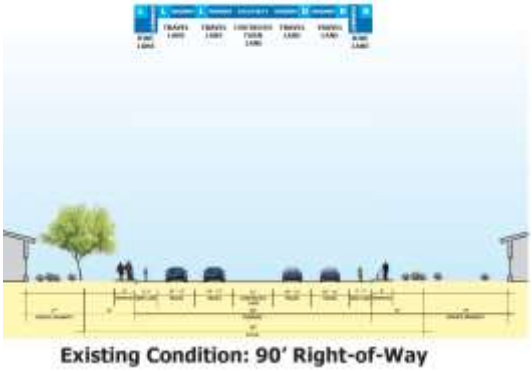
Potential R.O.W. Range – 109 to 172 feet

Option 6+T B: 174' Right-of-Way

Exploration of "Fitting" Cross Section Concepts in Existing Conditions

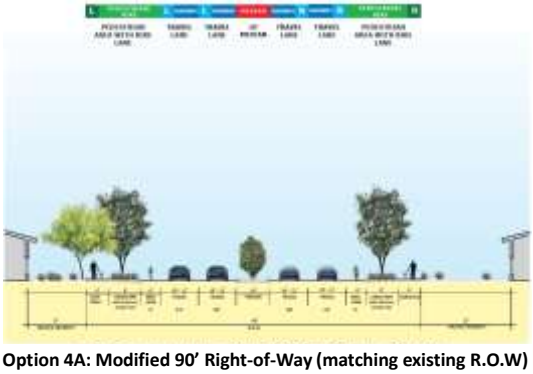
- Illustrate prototypical conditions along Broadway
- How Cross Section Concepts can be integrated to
  - Avoid potential impacts to parking and buildings
  - Reduce potential for property acquisition
  - Maximize positive impacts to character of the street and its context
  - Maximize support for walking, biking, and transit
- Begins to illustrate positive and negative impacts that will be more fully assessed during the alignment design process
- Range of design parameters related to context and particular street elements
  - Commercial building frontages
    - Visibility
    - Parking and access
    - Walkways and sidewalks
  - Residential building frontages
    - Privacy
    - Landscaped yard setback
  - Flexibility in width for various street design elements – "section cards"
  - Potential to enhance some elements of Cross Section Concepts if space allows (i.e.; additional landscape, sidewalk, or other space within the cross section)

Existing Prototypical West of Campbell



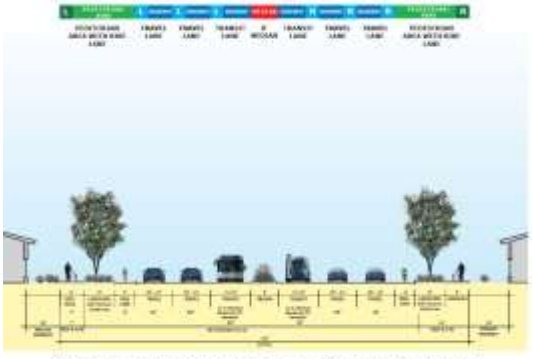
Existing Condition: 90' Right-of-Way

Four Lane Prototypical West of Campbell



Option 4A: Modified 90' Right-of-Way (matching existing R.O.W)

Four Lane + Transit Prototypical West of Campbell



Option 4+T A: Modified 112' Right-of-Way

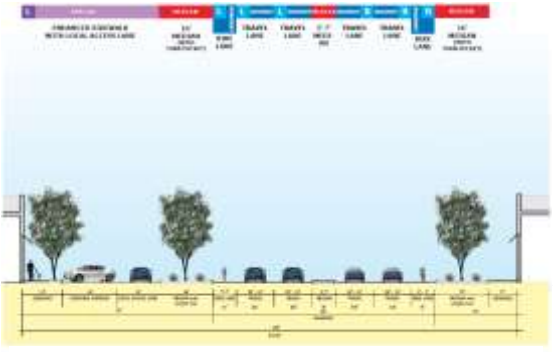
Six Lane + Transit Prototypical West of Campbell

Option 6+T A: 146' Right-of-Way

Existing Prototypical East of Campbell

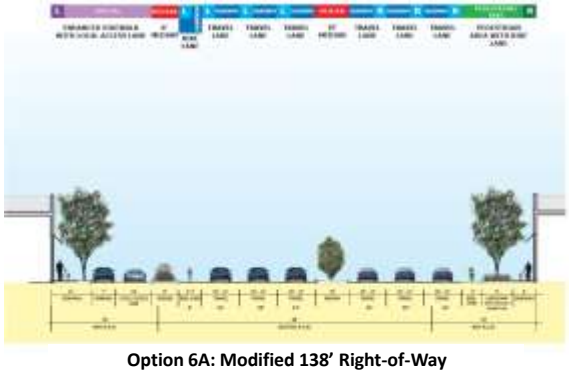
Existing Condition: 80' Right-of-Way

Four Lane Prototypical East of Campbell



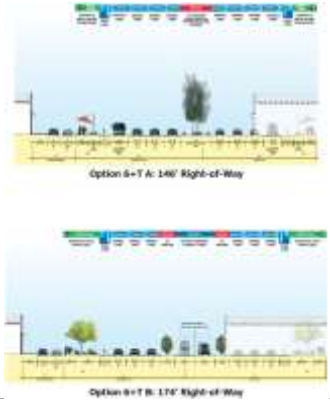
Option 4A: Modified 138' Right-of-Way
(58' roadway width maintaining existing parking and buildings)

Six Lane Prototypical East of Campbell



Option 6A: Modified 138' Right-of-Way
including parking and public sidewalks at building fronts

Six Lane + Transit Prototypical East of Campbell

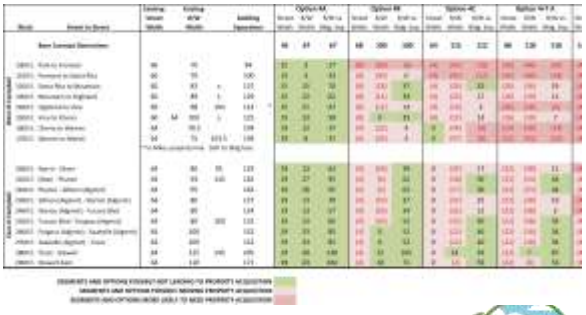


Relationship to Existing Conditions of Right of Way

Relationship to Existing Conditions of Right of Way

Relationship to Existing Conditions of Right of Way

Relationship to Existing Conditions of Right of Way



Performance Measure Assessment

- Transportation topic areas
  - Pedestrian Access and Mobility
  - Bicycle Access and Mobility
  - Transit Access and Mobility
  - Vehicular Access and Mobility
- Non-Transportation topic areas
  - Sense of Place
  - Environment/Public Health
  - Economic Vitality
  - Project Cost

Performance Measure Assessment

Performance Measure Assessment

Pedestrian Access and Mobility

1a. Functionality of Streetside for Pedestrian Activity
1b. Separation from Vehicular Traffic
1c. Pedestrian-Oriented Facilities or Improvements
1d. Walkable Network/Neighborhood Connections
1e. **Pedestrian Crossings**
1f. **Vehicle/Pedestrian Conflicts at Driveways**
1g. Universal Design
1h. Walkable Destinations
1i. Ease of Transition to Walking

Pedestrian Access and Mobility

1a. Functionality of Streetside for Pedestrian Activity	
Description	• Is there enough width to support desired activity, landscaping, street furnishings and other improvements
Measurement	• Meet or exceed ITE Walkable Thoroughfare Manual guidance
Factors	• Width of pedestrian/landscape area • Infrastructure provided in area
Ability to Effect	• High
Ability to Evaluate	• High for this point in process

Pedestrian Access and Mobility

1b. Separation from Vehicular Traffic	
Description	• Width and design character of area between outside edge of vehicle lane and sidewalk
Measurement	• Width meets or exceed ITE Walkable Thoroughfare Manual guidance • Frequency and quality of street trees or other large landscape
Factors	• Width of landscape area • Width of bicycle lane • Frequency and quality of large landscape
Ability to Effect	• High

Functionality of Streetside for Pedestrian Activity

Pedestrian Access and Mobility

1c. Pedestrian-oriented Facilities or Improvements	
Description	• Extent of shade, lighting, seating, drinking fountains and other features to serve pedestrian needs and provide for visual interest
Measurement	• % shade, lighting levels and consistency, number/frequency of design features • Qualitative evaluation
Factors	• Provision for and increase in number of features
Ability to Effect	• Minimal at the cross section and alignment level, beyond provision of enough pedestrian area to allow for detailed facilities. Evaluation of space is generally covered by measures 1a and 1b.
Ability to Evaluate	• Moderate at this level of design • Design does not currently include details for streetscape design, but lower cost cross section concepts may allow more budget to be spent on pedestrian facilities

Pedestrian Access and Mobility

1d. Walkable Network/Neighborhood Connections	
Description	• Ability for pedestrians to access neighborhoods and pedestrian network
Measurement	• Number, length, and quality of connections
Factors	• Likely varies by quality of environment on Broadway and frequency of crossings • Frequency and quality of connections to adjacent pedestrian network
Ability to Effect	• High to Moderate
Ability to Evaluate	• Low • Quality of environment along Broadway is measured through #1a and #1b • Other factors require alignment and crossing design

Pedestrian Access and Mobility

1e. Pedestrian Crossings	
Description	• Ease of crossing Broadway
Measurement	• Frequency, length, and quality of pedestrian crossings • Time needed to cross street • Signal timing for pedestrian phase (VISSIM analysis)
Factors	• Width and number of lanes (through and turn) • Width and number of medians • Level of pedestrian comfort in medians • Frequency of crossings • Signal timing design • **Wait time for crossing signal (including time in median if two or more light cycles are required to cross)**
Ability to Effect	• High
Ability to Evaluate	• Moderate at this phase – several factors are directly related to cross section design, several are not

Pedestrian Access and Mobility

1f. Vehicle/Pedestrian Conflicts at Driveways	
Description	• Conflicts between pedestrians and vehicles exist at driveways for site access; strongly related to #2b
Measurement	• Provision of level pedestrian crossings • Travel speed to vehicles • Frequency of driveways
Factors	• Width of roadside to accommodate level pedestrian crossings • Target speed and roadway design's support of speed management • Frequency and width of driveways • **Visibility (landscaping, site lines, signage)**
Ability to Effect	• High
Ability to Evaluate	• Moderate – some factors are directly related to cross section design, several are not

Pedestrian Access and Mobility

1g. Universal Design	
Description	• Going beyond base requirements of access (ADA) design for people of all ages and abilities
Measurement	• Provision of access and mobility design elements that achieve Universal Design
Factors	• All other pedestrian access and mobility factors measure performance related to aspects of universal design • Likely that other factors will be most affected by details of design • Potential to implement design details likely affected by width of roadside and cost of other project elements (lower cost for other elements may allow more budget for Universal Design)
Ability to Effect	• High
Ability to Evaluate	• Low • Details are not provided by current level of design

Universal Design

Pedestrian Access and Mobility

1h. Walkable Destinations	
Description	• Presence and access to jobs, homes, shopping, etc. • Presence of sufficient density of other uses and access from other uses to support market for employment, shopping, etc.
Measurement	• Determine density of households and jobs within walkable distance of uses along Broadway
Factors	• #1d Walkable Network/Neighborhood Connections • Potential for jobs, commercial uses, and homes along Broadway
Ability to Effect	• High for #1d • Uncertain for land use related factors (#5c Broadway as a Destination, #6f Land Use Mix, and other non-transportation performance measures)
Ability to Evaluate	• Same as #1d • Low to Moderate for non-transportation performance measures (to be discussed further on Thursday)

Pedestrian Access and Mobility

1i. Ease of Transition to Walking	
Description	• The ability of users to become pedestrians
Measurement	
Factors	• Proximity and number of parking lots • Proximity and number of bicycle parking/lockers • Number of bus stops/transit stations • Number and type of comfort and safety features (lighting, seats, shade) • Number of attractions/commercial uses
Ability to Effect	• High
Ability to Evaluate	• Not at this level of design

Bicycle Access and Mobility

2a. **Separation of Bikes and Arterial Traffic**
2b. **Bike Conflicts with Crossing Vehicles**
2c. ~~Vehicle/Bike Conflicts at Side Streets~~ (combined into 2b)
2d. **Pavement Condition**
2e. **Bike Facility Improvements**
2f. Bike Network Connections
2g. Corridor Travel Time
2h. Bike Crossings

Bicycle Access and Mobility

2a. Separation of Bikes and Arterial Traffic	
Description	• Greater separation is a factor related to bicyclist safety and comfort, and therefore likely bicycle use of Broadway
Measurement	• Relationship of proposed separation compared to ITE Walkable Thoroughfares Manual recommendation of 6 feet
Factors	• **Bike lane is a legal bike lane (as opposed to a "striped shoulder")** • Combination of bike lane and buffer (painted line or other) width • Buffer other than painted line • Location of transit stops (street side or median)
Ability to Effect	• High
Ability to Evaluate	• High for cross section and location of transit stops • Low for intersections (crossings of bike lane for right turns)

Bicycle Access and Mobility

2b. Bike Conflicts with Crossing Vehicles (note this includes the 2c perf. measure)	
Description	• Vehicles cross bike lanes for a variety of reasons, the design and frequency of these crossings can effect bicyclist safety and comfort
Measurement	• Frequency and type of traffic crossing bike lanes • Length of uninterrupted bike lane • Design details of crossing area
Factors	• Reducing number and length of crossing points • Design details of crossing area
Ability to Effect	• High
Ability to Evaluate	• Moderate at current level of design (location of transit stops and use of local access lanes) • Design does not include current details of site access or intersections

Bicycle Access and Mobility

2d. Pavement Condition	
Description	• Smooth pavement is a priority for bicyclist comfort
Measurement	• Input from TDOT and Bicycle Advisory Committee • Best practice guidance, possibly including **elements of** NACTO Bike Guide
Factors	• Concrete with proper joint design versus asphalt • **Gutter design** • **Landscaping palette**
Ability to Effect	• High
Ability to Evaluate	• Low to none • Pavement type not dependent on cross section design, except for potential for lower cost cross section concepts to allow for more budget to be spent on bike lane pavement

Bicycle Access and Mobility

2e. Bike Facility Improvements	
Description	• Extent of bike racks, shade, drinking fountains, green pavement (bike boxes, etc.) and other features to serve bicyclists needs
Measurement	• % shade, number/frequency of design features • Qualitative evaluation
Factors	• Increase in number of features • **Continuity of bike treatments through project area**
Ability to Effect	• Minimal at the cross section and alignment level, beyond provision of enough area in streetside to allow for facilities. Evaluation of space is generally covered by measures 1a and 1b.
Ability to Evaluate	• Moderate at this level of design • Design does not currently include this level of design, but lower cost cross section concepts may allow more budget to be spent on bike facilities

Bicycle Access and Mobility

2f. Bike Network Connections	
Description	• Convenience and safety of access to surrounding bike network
Measurement	• Number, length, and quality of connections to bike network
Factors	• Allowing bikes through any side street closures for vehicles • Provision of bike crossings and proximity to bike network
Ability to Effect	• High
Ability to Evaluate	• Low at this level of design • Quality of environment along Broadway and crossings are measured through #2a, #2b, and #2h • Other factors require alignment and crossing design

Bicycle Access and Mobility

2g. Corridor Travel Time	
Description	• The time it takes for average and advanced riders to travel the length of Broadway
Measurement	• VISSIM analysis of travel time and signal delay
Factors	• Signal timing • #2b Bike Conflicts with Crossing Vehicles
Ability to Effect	• High
Ability to Evaluate	• Not viable at current level of design • Requires alignment and intersection design

Bicycle Access and Mobility

2h. Bike Crossings	
Description	• Convenience and safety of bike crossings will support bike use
Measurement	• Frequency and length of crossings • Average signal delay at crossings (VISSIM analysis)
Factors	• Width and number of lanes (through and turn) • Width and number of medians • Level of bicycle comfort in medians • Frequency of crossings • Signal timing design (VISSIM analysis)
Ability to Effect	• High
Ability to Evaluate	• Moderate at this phase – several factors are directly related to cross section design, several are not

Transit Access and Mobility

3a. Distance to Transit Stops
3b. Transit Stop Facilities
3c. Corridor Travel Time
3d. Schedule Adherence
3e. Frequency and Hours of Service
3f. Accommodation of Future High Capacity Transit
3g. Riders per Vehicle

Transit Access and Mobility

3a. Distance to Transit	
Description	• Number and location of transit stops and the number of households, jobs, and services within walking distance has an relationship to transit ridership
Measurement	• Number of households, jobs, and square feet of commercial use within walking distance of transit stops
Factors	• 1d. Walkable Network/Neighborhood Connections • 1h. Walkable Destinations • Several non-transportation performance measures
Ability to Effect	• Low to Moderate
Ability to Evaluate	• Low to None • Other factors require alignment and crossing design • Land use policies related to non-transportation measures are not part of this project

Transit Access and Mobility

3b. Transit Stop Facilities	
Description	• Design qualities of transit stops can support transit use
Measurement	• % shade, lighting levels and consistency, number/frequency of other design features • Qualitative evaluation by designers and users
Factors	• Provision for and increase in number of features
Ability to Effect	• High
Ability to Evaluate	• Low to Moderate at this level of design, right of way could be increased at transit stops to provide space for facilities • Design does not currently include details for streetscape design, but lower cost cross section concepts may allow more budget to be spent on transit facilities

Transit Access and Mobility

3c. Corridor Travel Time	
Description	• Time for traveling the length of the corridor affects transit ridership
Measurement	• VISSIM results accounting for signal timing, transit priority treatments, traffic delay, merges, and boarding time at transit stops
Factors	• Dedicated lanes, transit priority treatments at intersections, level boarding, off-vehicle ticketing, and other measures
Ability to Effect	• Moderate to High
Ability to Evaluate	• Low to Moderate at current level of design (presence of transit only lanes) • Other factors require higher level of design and commitments from Sun Tran

Transit Access and Mobility

3d. Schedule Adherence	
Description	• Ridership is encouraged by transit that is on time. Some elements of project design can support schedule adherence.
Measurement	• Variation in travel time across a sampling of VISSIM modeling runs
Factors	• Level boarding, off-vehicle ticketing, and other station improvement • Dedicated transit lanes and other transit priority features • Other factors related to scheduling and transit driver practices are under the purview of Sun Trans and cannot be evaluated by this project
Ability to Effect	• Moderate
Ability to Evaluate	• Low to Moderate at current level of design (presence of transit only lane; likely combine with 3c) • Other factors require higher level of design and commitments from Sun Tran

Transit Access and Mobility

3e. Frequency and Hours of Service	
Description	• How frequently transit vehicles arrive at a stop and the hours of service can affect transit ridership levels
Measurement	• This is a Sun Trans operations issue for the most part • Potential service efficiencies related to other transit performance measures could provide Sun Trans the opportunity to increase service levels along Broadway
Factors	• Service efficiencies related to other transit performance measures
Ability to Effect	• Low
Ability to Evaluate	• None

Transit Access and Mobility

3f. Accommodation of Future High Capacity Transit	
Description	• The ability of the roadway and roadside design to accommodate future high capacity transit can ultimately improve performance of design concepts in relation to other transit performance measures • Also affects long term viability of the design concept, see 5g Certainty
Measurement	• Provision of dedicated transit lanes • Roadside or median width allows for future transit improvements
Factors	• Provision of dedicated transit lanes • Roadside or median width allows for future transit improvements
Ability to Effect	• High

Ability to Evaluate	• Low to Moderate at this level of design
	  • Provision of dedicated lanes
	  • Right of way could be increased at transit stops to provide space for facilities
	• Design does not currently include details of intersection design

Transit Access and Mobility

3g. Riders per Vehicle	
Description	• Efficiencies in number of riders per vehicle, while avoiding overcrowded, improve cost performance of service and potentially cost to riders (also can reduce pollution per person trip)
Measurement	• Average daily rider per transit vehicle • Average riders per peak hour transit vehicle • Using transportation model and transit service assumptions
Factors	• Other transit performance measures that effect transit ridership and service efficiencies • Service planning by Sun Trans
Ability to Effect	• Low to Moderate
Ability to Evaluate	• Cannot be measured at current level of design

Vehicular Access and Mobility

4a. Movement of Through Traffic
4b. Intersection Delay – Overall Intersection Performance
4c. Intersection Delay – Worst Movement
4d. Accident Potential
4e. Lane Continuity
4f. Persons per Vehicle or Person Trips
4g. Access Management Management for Adjacent Properties

Vehicular Access and Mobility

4a. Movement of Through Traffic	
Description	• A range of corridor and intersection evaluations can measure effectiveness of moving through traffic which can have an affect on a variety of other transportation, environment, and economic factors.

Measurement	• Using VISSIM modeling can measure:
	  • Average corridor travel time
	  • Average speed
	  • Average 95 percentile queue length
	  • Average delay Average corridor travel time
	  • Volume to Capacity Ratio (V/C)
	  • Travel time reliability

Factors	• Number of traffic lanes • Signal design • Intersection design • Access management • Transit service design
Ability to Effect	• High
Ability to Evaluate	• Moderate at current level of design as only number of traffic lanes and presence of transit only lanes are defined

Vehicular Access and Mobility

4b. Intersection Delay – Overall Intersection Performance	
Description	• Intersection delay for both Broadway and cross street traffic has an effect on the overall street network in the project area (and potentially beyond)

Measurement	• Traffic modeling
	  • Average 95 percentile queue length
	  • Average delay
	  • Volume to Capacity Ratio (V/C)

Factors	• Number of through and turn lanes • Length of turn lanes • Signal design, including crossing time considerations for pedestrians and bicycles • Transit priority treatments • Other intersection design features
Ability to Effect	• High
Ability to Evaluate	• Low to None • Intersection design is not a part of current design concepts

Vehicular Access and Mobility

4b. Intersection Delay – Worst Movement	
Description	• Intersection delay for worst movement at intersections has an effect on the overall street network in the project area (and potentially beyond)

Measurement	• Traffic modeling
	  • Average 95 percentile queue length
	  • Average delay
	  • Volume to Capacity Ratio (V/C)

Factors	• Number of through and turn lanes • Length of turn lanes • Signal design, including crossing time considerations for pedestrians and bicycles • Transit priority treatments • Other intersection design features
Ability to Effect	• High
Ability to Evaluate	• Low to None • Intersection design is not a part of current design concepts

Vehicular Access and Mobility

4d. Accident Potential	
Description	• Certain factors have been identified in the literature as contributing to higher accident rates and severity of accidents
Measurement	• Based on review of the literature quantitatively and qualitatively evaluate certain design features and design criteria
Factors	• Number of access points to adjacent properties • Number of side street access points • 4e Lane continuity • Amount of bike lane cross over length • Others?
Ability to Effect	• High
Ability to Evaluate	• Low to None at current level of design

Vehicular Access and Mobility

4e. Lane Continuity	
Description	• Merging the number of lanes in the roadway cross section following an intersection or for other reasons decreases roadway capacity and increases potential for crashes
Measurement	• Analyze performance of lane reductions using VISSIM • Compare with performance of similar lane reductions in Tucson
Factors	• Number and design of lane drop locations
Ability to Effect	• High
Ability to Evaluate	• Low to None, currently design concepts do not propose additional through lanes at intersections

Vehicular Access and Mobility

4f. ~~Persons per Vehicle or~~ Person Trips for multiple measures	
Description	• Multi-modal measures allowing evaluations on a per person basis

Measurement	• Convert vehicle, transit, and bicycle trips to person trips for the corridor
	• Use traffic model and VISSIM to assess different modal performance for:
	  • Corridor travel time
	  • Average delay
	  • Travel time reliability
	  • Other measures as appropriate

Factors	• Number of traffic lanes • Signal design/timing • Intersection design • Access management • Transit service design • #2b Bike Conflicts with Crossing Vehicles • Dedicated transit lanes, transit priority treatments at intersections, level boarding, off-vehicle ticketing, and other measures
Ability to Effect	• High
Ability to Evaluate	• Not viable at current level of design • Requires alignment and intersection design

Vehicular Access and Mobility

4g. Access Management for Adjacent Properties	
Description	• Changes to curb-cut/driveway access from Broadway to parking and loading for adjacent business to improve traffic flow, reduce conflicts with pedestrians and bicycles, and generally reduce potential for accidents. • Can require shared access with adjacent properties
Measurement	• Quantitative and qualitative evaluation by planning team of reduced conflicts and quality of site access
Factors	• Reduction in number and width of curb-cut/driveway access • Maintenance of site functionality
Ability to Effect	• High
Ability to Evaluate	• Not viable at current level of design • Requires alignment design

Sense of Place

5a. Historic Resources
5b. Visual Quality
5c. Broadway as a Destination
5d. Gateway to Downtown
5e. Conduciveness to Business
5f. Walkable Community
5g. Certainty

Sense of Place

5a. Historic Resources	
Description	• The number of historic structures lost due to direct impact • The number of historic structures with limited usefulness as a result of loss of parking, setback, site access, and other conditions
Measurement	• Count of historic structures lost by category
Factors	• Roadway width • Streetside area width • Alignment placement
Ability to Effect	• High
Ability to Evaluate	• Moderate to High at current level of design • More definitive as intersections and alignment are designed

Sense of Place

5b. Visual Quality	
Description	• Ability of the roadway design to enhance visual quality using a mix of features
Measurement	• Qualitative assessment **(project team and input from CTF)**
Factors	• Design of median and streetside landscaping • **Number and location of placemaking features (including public art, wayfinding, lighting, furniture, etc.)** • Width of roadside areas for streetscape elements and landscaping
Ability to Effect	• High
Ability to Evaluate	• Moderate at current level of design • Design does not currently include details for streetscape design, but lower cost cross section concepts may allow more budget to be spent on visual quality

Sense of Place

5c. Broadway as a Destination	
Description	• Promote development and civic spaces that would be attractive to users from surrounding neighborhoods, the city, and the region • Provide visual quality, access, and other features that make Broadway appealing to development and customers
Measurement	• Qualitative evaluation
Factors	• Factors related to 5b Visual Quality • Coordinate façade improvement, parking management, and other programs and improvements • Land use regulations supporting development sought
Ability to Effect	• Moderate
Ability to Evaluate	• Low for current level of design and planning

Sense of Place

5d. Gateway to Downtown	
Description	• Visual quality, ease of mobility, and similar features that improve connection to downtown
Measurement	• Qualitative evaluation
Factors	• To be determined through discussions with CTF
Ability to Effect	• Moderate
Ability to Evaluate	• Low to Moderate at current level of design

Sense of Place

5e. Conduciveness to Business	
Description	• The type and size of businesses that would be drawn to the corridor under various development approaches
Measurement	• Qualitative evaluation

Factors	• To be determined through discussions with CTF and professional experience
	  • Site access and parking location
	  • Building size and design accommodated
	  • Other TBD

Ability to Effect	• Moderate
Ability to Evaluate	• Low at this level of design

Sense of Place

5f. Walkable Community	
Description	• How well the improvements and land use plan place businesses within walking distance for a viable number of residences
Measurement	• See measures under "1. Pedestrian Access and Mobility"
Factors	• See measures and factors under "1. Pedestrian Access and Mobility"
Ability to Effect	• Varies
Ability to Evaluate	• Varies

Sense of Place

5g. Certainty	
Description	• Relates to comments received, "Do it right this time so it doesn't have to be done again."
Measurement	• Qualitative evaluation
Factors	• Capacity projections • Ridership projections (bus transit; BRT) • Flexibility to meet changing transportation needs
Ability to Effect	• Moderate to High

Ability to Evaluate	• Moderate to High at current level of design
	• See also performance measures –
	  • 1a Functionality of Streetside for Pedestrian Activity
	  • 1c Pedestrian-Oriented Facilities or Improvements
	  • 1g Universal Design
	  • 2e Bike Facility Improvements
	  • 3f Accommodation of Future High Capacity Transit
	  • 4a Movement of Through Traffic
	  • 4f Persons Trips

Environment/Public Health

6a. Greenhouse Gases
6b. Other Tailpipe Emissions
6c. Heat Island
6d. Water Harvesting
6e. Walkability/Bikability
6f. Land Use Mix
6g. Affordability

Environment/Public Health

6a. Greenhouse Gases	
Description	• Corridor design features that can reduce CO_2 emission
Measurement	• Quantitative analysis
Factors	• Proportion alternative modes of transportation • Level of congestion • Quality of vehicle fleet, fuel, etc.
Ability to Effect	• Moderate
Ability to Evaluate	• Not at current level of design • Some factors ultimately not effected by this project

Environment/Public Health

6b. Other Tailpipe Emissions	
Description	• Identification and reduction of other important tailpipe emissions, such as particulates
Measurement	• Quantitative evaluation
Factors	• Proportion alternative modes of transportation • Level of congestion • Quality of vehicle fleet, fuel, etc.
Ability to Effect	• Moderate
Ability to Evaluate	• Not at current level of design • Some factors ultimately not effected by this project

Environment/Public Health

6c. Heat Island	
Description	• Determine comparative heat island effect of various alternatives
Measurement	• Qualitative and quantitative evaluation
Factors	• Reduce roadway and sidewalk pavement contribution to heat gain though a combination of shade, solar reflectivity (high albedo) of materials, and area of pavement • Increase landscaped area • Increase amount of shade
Ability to Effect	• High
Ability to Evaluate	• Moderate at current level of design (amount of landscaped area & number of trees) • High with more detailed design and selection of building materials

Environment/Public Health

6d. Water Harvesting	
Description	• Retain rainfall onsite to benefit project landscaping
Measurement	• TDOT Active Practice Guideline "Green Streets" (draft)
Factors	• Width and depth of median and streetside areas • Amount of reduction in runoff on paved areas • Types of materials used (pervious pavement)
Ability to Effect	• High
Ability to Evaluate	• Moderate at current level of design • High as design is developed further

Environment/Public Health

6e. Walkability/Bikeability	
Description	• Design elements that will encourage biking and walking over driving
Measurement	• See 1. Pedestrian and 2. Bicycle Access and Mobility performance measures
Factors	• **Number of bike and pedestrian facilities and features** • **Continuity of treatments** • **Comfort and security features** • **Sf. Walkable Community**
Ability to Effect	• **High to Moderate depending on performance measure**
Ability to Evaluate	• High to not viable at current level of design depending on performance measure • High to Low depending on performance measure

Environment/Public Health

6f. Land Use Mix	
Description	• Ability to accommodate mixed use development within walking and biking distance of the Broadway corridor, and to support transit ridership
Measurement	• Qualitative analysis
Factors	• Support of mixed use by current/future zoning • Determine if, and what type of policy and procedural changes are needed • Count and size of parcels conducive to accommodate desired land use mix
Ability to Effect	• Low to indirect
Ability to Evaluate	• Not at current level of design • Moderate as design is developed in more detail (i.e.; alignment) and policy issues are discussed

Environment/Public Health

6g. Affordability	
Description	• Combined housing and transportation costs for users of the Broadway corridor
Measurement	• Qualitative evaluation

Factors	• Relates to other measures:
	  • 1, 2, & 3 – Pedestrian, Bicycle, and Transit Access & Mobility
	  • 5f Walkable Community
	  • 6b Other Tailpipe Emissions
	  • 7g Job Impacts

Ability to Effect	• Low
Ability to Evaluate	• Not at current level of design and planning

Economic Vitality

7a.-7b. **Change in** Economic Potential
7c.-7d. **Change in** Business Revenue
7e.-7f. **Change in** Sales Tax Revenue
7g.-7h. **Change in** Property Tax Revenue
7i. Business Impacts
7j. Job Impacts

Economic Vitality

7a. – 7b. Change in Economic Potential	
Description	• Suitability of parcels along Broadway to provide for current commercial or residential use, repurposed, or adaptive reuse, or to provide future mix of commercial and residential uses, and open space
Measurement	• Qualitative analysis by economic and other planning team members to estimate use potential of existing and remnant land
Factors	• Possibly new land use policy and strategic planning for the disposition of remnant parcels (not part of current project scope of work) • Roadway alignment and width • Access management plan
Ability to Effect	• Moderate
Ability to Evaluate	• Not at current level of design and planning (cross section width is an indicator, but in some cases remnant parcels may have more economic potential than existing parcels)

Economic Vitality

7c.–7d. Change in Business Revenue	
Description	• Determine current and potential amounts of revenue generated by businesses along the corridor (by segments/not parcel-specific)

Measurement	• Analysis by economic and other planning team members
	  • City data (confidentiality will be respected)
	  • InfoUSA
	  • Standard & Poor's

Factors	• Possibly new land use policy and strategic planning for the disposition of remnant parcels (not part of current project scope of work) • See 7a-7b Change in Economic Potential
Ability to Effect	• To be determined
Ability to Evaluate	• Not at current level of design and planning (see 7a-7b Change in Economic Potential)

Economic Vitality

7e. – 7f. Change in Sales Tax Revenue	
Description	• The amount of existing and anticipated sales tax generated from the businesses on the corridor
Measurement	• City collected data (confidentiality will be respected) • Qualitative evaluation
Factors	• Revenues collected on businesses currently in corridor • Anticipated revenues for businesses that would remain in corridor after construction • Possibly new land use policy and strategic planning for the disposition of remnant parcels (not part of current project scope of work) • Width of roadway • Placement of alignment • Access management plan
Ability to Effect	• To be determined
Ability to Evaluate	• Not at current level of design and planning (see 7a-7b Change in Economic Potential)

Economic Vitality

7g. – 7h. Change in Property Tax Revenue	
Description	• Amount of current and anticipated future property tax generated from the properties along the corridor
Measurement	• County Assessor data • Qualitative evaluation
Factors	• New land use policy and strategic planning for the disposition of remnant parcels (not part of current project scope of work) • Width of roadway • Placement of alignment • See 7a-7b Change in Economic Potential
Ability to Effect	• To be determined
Ability to Evaluate	• Not at current level of design and planning (see 7a-7b Change in Economic Potential)

Economic Vitality

7i. Business Impacts	
Description	• The absolute number and size in terms of annual revenue
Measurement	• Quantitative assessment based on InfoUSA data and alignment impact evaluation
Factors	• Limit impacts to businesses/properties to one side of roadway at any particular location • See 7a-7b Change in Economic Potential
Ability to Effect	• To be determined
Ability to Evaluate	• Not at current level of design and planning (see 7a-7b Change in Economic Potential)

Economic Vitality

7j. Job Impacts	
Description	• Potential change in number of jobs
Measurement	• Estimate of current and potential future employment in project area (may be challenging to track given business relocations and/or job creation under various alternatives)
Factors	• To be determined • See 7a-7b Change in Economic Potential
Ability to Effect	• To be determined
Ability to Evaluate	• Not at current level of design and planning (see 7a-7b Change in Economic Potential)

Project Cost

8a. Construction Cost

8b. Acquisition Cost

8c. Income for Reuse of City-owned Property

Project Cost

8a. Construction Cost	
Description	• Cost of construction
Measurement	• Approximate quantity takeoffs of major cost items (pavement, curb) • Approximate typical unit costs (landscaping, bus stop/station improvements, lighting, signals)
Factors	• Width of roadway cross-section • Scale and quantity of streetside improvements
Ability to Effect	• High (ROW acquisition is also a significant cost)
Ability to Evaluate	• Moderate at current level of design (estimates made based on cross sections) • High as intersections and other design elements are established

Project Cost

8b. Acquisition Cost	
Description	• Cost to acquire needed ROW, including the cost of the property, relocation, and other qualified costs
Measurement	• Quantitative and qualitative evaluation • Federal and State relocation requirements • Potential return on excess/remnant ROW
Factors	• Number and size of property acquisitions • Street width and alignment
Ability to Effect	• High
Ability to Evaluate	• Low to Moderate at current level of design and planning (estimates made based on cross sections) • Moderate as intersections and other design elements are established, and impacts and ability to maintain use of properties can be estimated

Project Cost

8c. Income for Reuse of City-Owned Parcels	
Description	• Income from sale or lease of remnant City-owned properties not needed for the project
Measurement	• Qualitative and quantitative analysis by economic and other planning team members to estimate use potential of existing and remnant land
Factors	• See 7a-7b Change in Economic Potential
Ability to Effect	• To be determined
Ability to Evaluate	• Not at current level of design and planning • Moderate at future point in design and planning • See 7a-7b Change in Economic Potential

Initial Discussion of September Public Meeting #3

Jenn Toothaker, Project Manager
City of Tucson Department of Transportation

Broadway's Planning & Design Phase

Initial Discussion of Public Meeting #3 September 5, 2013

Task-Related Goals:

- Present
  - Overview of Vision Statement Initial Draft Cross Section Concepts
  - Performance Measures in relation to project goals
  - Initial assessment of concept options
- Small Group Activity "Build Your Own Cross-Section"
  - Review concepts and assessments
  - Select a set of preferred concepts to move forward for further evaluation
  - Indicate most important performance measures and goals

Initial Discussion of Public Meeting #3 September 5, 2013

Proposed Meeting Agenda

- Welcome
- Overview Presentation
- Activity / Small Group Discussions at Tables
- Report Outs by Groups
- Closing Remarks & Next Steps

Initial Discussion of Public Meeting #3

Activity / Small Group Table Discussions

- Time ~ 60 mins
- Table facilitators and recorders to help participants
- Input obtained during activity and in response to specific questions (not yet determined)
- *Other likely meeting components would include video booth, comment cards, and display boards*

Initial Discussion of Public Meeting #3 September 5, 2013

- Are there any specific ideas about you have about:
  - CTF roles in the event?
  - Format of the event or table activities?
  - Overall content and discussion?

Call to the Audience

10 Minutes

Please limit comments to 3 minutes

- Called forward in order received
- CTF members cannot discuss matters raised
- CTF cannot take action on matters raised
- CTF members can ask project team to review an item

Next Steps/Roundtable

Jenn Toothaker

Upcoming Meetings: Thursday, June 20, 2013 & Thursday, July 25, 2013
(5:30-8:30 p.m., Child & Family Resources)

- June 20th CTF Agenda to include *(in addition to standard agenda items)*:
  - Informational Presentations
    - BRT Update
    - Downtown Links and Ronstandt Transit Center Update
  - Review of input from Technical Advisory Committee
  - Review and Endorse potential cross sections and assessments for Stakeholder Agency review
  - (Possible) Update/Endorsement of September Public Meeting Planning
- July 25th CTF Agenda to include *(in addition to standard agenda items)*:
  - Informational Presentations
    - Universal Design and ADA
    - Corridor Economic Development & TOD
  - Update on Stakeholder Agency review
  - Discussion/Endorsement of September Public Meeting Format

Thank You for Coming – Please Stay in Touch!

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RTA Plan
www.rtamobility.com